

Patent claims

1. A wheel bearing (8) in a wheel carrier (7), the wheel bearing (8) having at least one outer ring (2), having at least one row of rolling bodies (3), the wheel bearing (8) being supported in the wheel carrier (7) at least on a cylindrical section (2g) of the outer ring (2) at least radially with respect to the rotational axis (11), and the outer ring (2) having a flange (2c) which points radially away from the rotational axis (11), characterized in that a raceway (2a) for the row is formed at least partially on the section (2g), and in that the flange (2c) is formed axially on the end side of the outer ring (2), the flange being fastened axially to the wheel carrier (7).

2. The wheel bearing as claimed in claim 1, characterized in that a hole (7a) of the wheel carrier (7) has a circularly cylindrical internal geometry (2r) which is finished by material removing machining, and the outer ring (2), before assembly in the hole (7a), has a finished external geometry (2s) at least on the section (2g), the external geometry (2s) differs from the internal geometry (2r) at least in one diameter and in one roundness, and at least the section (2g) here is unround and of greater diameter compared with the hole (7a), and in that the outer ring (2) which is seated in the hole (7a) with a press fit has a geometry which is adapted to the internal geometry (2r) on the outside, at least on the section (2g), and at least the section (2g) is constricted here radially toward the inside and the outer ring (2) is as round as the hole (7a) here, at least on the section (2g) in the hole (7a).

3. The wheel bearing as claimed in claim 1, characterized in that the outer ring (2) has an external geometry (2s) which is finished by cold forming.

4. The wheel bearing as claimed in claim 1, characterized in that the outer ring (2) has an external geometry (2s) which is finished by hardening.
5. The wheel bearing as claimed in claim 1, characterized in that the wheel bearing (8) has at least one inner ring (4), the inner ring (4) having an inner ring raceway (4a).
6. The wheel bearing as claimed in claim 1, characterized in that the outer ring (2) is cold formed in one piece with the flange (2c).
7. The wheel bearing as claimed in claim 1, characterized in that a fastening element (14) engages at least axially behind the flange (2c) on a side of the flange (2c) which faces axially away from the wheel carrier (7), and the fastening element (14) bears axially fixedly against the flange (2c) in the process, the fastening element (14) being fixed to the wheel carrier (7).
8. The wheel bearing as claimed in claim 1, characterized in that the fastening element (14) is a bolt with a head (14a), the bolt with the head (14a) bearing axially against the flange (2c) by engaging through a recess (2f) of the flange (2c), fastening the flange (2c) to the wheel carrier (7).
9. The wheel bearing as claimed in claim 8, characterized in that the recesses (2f) are open radially to the outside.
10. The wheel bearing as claimed in claim 8, characterized in that the first recesses (2f) are holes (16) which lead axially through the flange (2c).

11. The wheel bearing as claimed in claim 8, characterized in that the flange (2c) has sections (2g) which protrude radially and are adjacent to one another circumferentially, in each case one of the recesses (2f) extending radially at least partially in at least two of the sections (2g).

12. The wheel bearing as claimed in claim 11, characterized in that the flange (2c) has an odd number of radially protruding sections (2g), having at least three of the sections (2g) with the recesses (2f) be each adjacent to one of the sections (2g) without recess.

13. The wheel bearing as claimed in claim 1, characterized in that the flange (2c) bears axially against the wheel carrier (7) at least in sections.

14. The wheel bearing as claimed in claim 1, characterized in that a radial shoulder (2h) for the raceway (2a) is formed in one piece with the outer ring (2) between the rows.

15. The wheel bearing as claimed in claim 14, characterized in that the outer ring (2) is provided on the outside with an annular groove (2k), the annular groove (2k) extending radially partially into the radial shoulder (2h).

16. The wheel bearing as claimed in claim 1, characterized in that the wheel carrier (7) engages around at least the raceway (2a) of the outer ring (2), a hub (5) being supported in the outer ring (2) via the rolling bodies (3) on the raceway (2a) in such a way that it can rotate about the rotational axis (11), and the wheel flange (5d) leading radially from the hub.